DOCUMENT RESUME

ED 051 578 24 EA 003 581

AUTHOR	Fain, James C.
TITLE	Curriculum Revision Based on Behavioral Objectives for Twelve-Month, Four-Quarter Schools. Final Report.
INSTITUTION	Atlanta Public Schools, Ga.
SPONS AGENCY	National Center for Educational Research and Development (DHEW/CE), Washington, D.C.
BUREAU NO	BR-8-0420
PUB DATE	Mar 71
GRANT	OEG-0-8-080420-4317(010)
NOTE	40p.
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	*Behavioral Objectives, *Curriculum Development, Curriculum Guides, Educational Environment, High Schools, Inservice Teacher Education, *Quarter System, School Surveys, *Student Centered Curriculum, Teaching Guides, *Year Round Schools
IDENTIFIERS	Atlanta Public Schools

ABSTRACT

This report concerns the development of a new, learner-oriented high school curriculum, designed toward behavioral objectives, that would be feasible for 12-month, 4-quarter schools. Task forces, aided by systemwide and school-area inservice workshops, recommended the development of 506 courses in 12 subject areas and completed curriculum guides for 357 of these courses. Background information on the 12-month school; the organization, membership, and recommendations of the task forces; a bibliography; and a summary of findings from questionnaires administered to pupils, parents, teachers, and others for their reactions to the 12-month school are included. (Author/MLF)

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FINAL REPORT

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CURRICULUM REVISION BASED ON BEHAVIORAL OBJECTIVES FOR TWELVE-MONTH, FOUR-QUARTER SCHOOLS

James C. Fain, Director
Atlanta Public Schools
2930 Forrest Hill Drive, S. W.
Atlanta, Georgia 30315

March, 1971

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The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent offical Office of Education position or policy.

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I. SUMMARY

The problem under investigation in this study was the feasibility of curriculum revision for the operation of twelve-month, four-quarter schools. A two-year grant from the Bureau of Research of the United States Office of Education enabled the school system to conduct this project. A review of the literature on year-round schools had indicated various possible advantages and disadvantages and had revealed that a number of school systems had previously tried and later abandoned the plan. Nevertheless, in Atlanta it seemed that the potential advantages of twelve-month, four-quarter schools promised to be greater than the disadvantages, particularly since some of the disadvantages of previous years either (1) no longer exist or (2) now can be overcome. Chief advantages envisioned for the new plan included the following: a revised, revitalized, learner-oriented curriculum; schools in which the pupils might attend any three (or all four) quarters; new courses relevant to the pupils' needs; additional opportunities for pupil acceleration; full-time employment for those teachers who desire it; increased flexibility for family vacations; more part-time jobs for pupils; a steady flow of part-time pupil labor for businessmen throughout the year; better opportunities for pupils to take remedial work (at the end of a quarter instead of at the end of a semester); better pay for teachers; fewer double sessions and overcrowded schools; and full utilization of school facilities and personnel.

On the other hand, the potential disadvantages of the new plan seemed to have diminished in recent years for the following reasons: (1) pupils in Atlanta have no need for a short school year to enable them to work on farms; (2) air conditioning in modern school buildings has eliminated the discomfort of conducting classes during the summer quarter; (3) under the Atlanta plan pupils and parents would be given complete freedom to choose the quarters that the pupils would attend; (4) school plant maintenance would be scheduled between quarters, during holidays, on week ends, at night, and at other times; (5) problems related to pupil transfers would be minimized, since six school systems in the Metropolitan Atlanta Region simultaneously had adopted the new plan; (6) use of the computer for rescheduling pupils would make quarterly scheduling practical; and (7) there was some hope that the additional costs required to keep the schools in operation during four quarters (instead of three quarters) each year might be provided from state funds. Accordingly, since the remaining potential disadvantages seemed to be considerably smaller than the remaining potential advantages of the new plan, Atlanta initiated this project to investigate once more (now under new conditions) the feasibility of twelve-month, four-quarter schools.

The major objective of this project was to develop a new, learner-oriented, revitalized, high school curriculum in terms of assessable, behavioral objectives and to organize it into a twelve-month, four-quarter program for pupils.

The following major steps were taken in project implementation:

A. Fourteen task forces (one for each of thirteen major curriculum areas and one for counseling) were organized and set in motion.

B. Under the umbrella of educational goals for the school system, specific objectives were developed for each course in the curriculum.

C. Instructional resource materials and media were inventoried and catalogued for each course.

D. Mode-media mixes were devised to determine and to utilize the most effective strategies for accomplishing the specific objectives in each course.

E. The revised curriculum was field tested and is being modified in accord with the results of its field testing and evaluation.

F. Inservice education has been provided for the entire secondary school staff, to prepare them for successfully utilizing (and continuously improving) the new curriculum.

Membership on the curriculum-development task forces has involved 238 teachers, 13 counselors, 9 librarians, 20 resource teachers, 15 curriculum coordinators, 66 consultants, and miscellaneous other persons. Furthermore, the field testing and revising of the curriculum guides have involved great numbers of additional people throughout the school system, particularly classroom teachers in the specific subject area fields.

To facilitate the work of the curriculum-development task forces, 54 system-wide inservice workshops and 18 school-area workshops (total of 72 workshops) were held during the developmental period. In these workshops the task forces recommended the development of 506 courses in 12 subject areas, and curriculum guides for 357 of these courses have already been completed. Furthermore, additional courses are being field tested in pilot schools at the present time.

After three quarters of operation under the new organizational plan, the Supplementary Educational Center of the Metropolitan Atlanta Region conducted an opinion survey which revealed that pupils, parents, and teachers support year-round schools and unmistakably consider that the advantages outweigh the disadvantages.

This project has produced a number of curricula improvements. A strong effort has been made to redesign all curriculum guides around performance objectives, leading to more independent work and more individualized instruction for pupils. New courses have been added, and old courses have been revised to increase their relevance.

The new curriculum has been made more flexible -- providing additional pupil options for advanced courses, for remedial work, for independent study, and for changing courses without an undue loss of time. The workshops, the consultants, and the new curricula guides have stimulated teachers to make numerous improvements in their use of media and strategies in instruction. However, the principal benefits from this project seem to be as follows:

A. A revised, updated, more flexible and more relevant curriculum in the disciplines in which the school system concentrates.

B. A cadre of trained teachers and administrators experienced in the application of behavioral objectives and technology to teaching problems.

C. An in-school climate receptive to further curriculum change and improvement, which means that the impact of this project will continue into future years.

To insure continued progress under the twelve-month, four-quarter plan, the following additional steps need to be taken:

A. Provide preservice training in the new curriculum for all teachers new to the school system.

B. Provide inservice training opportunities to foster the continuous professional development of all teachers, departmental chairmen, and principals.

C. Continue the process of revising the curriculum guides, to keep them updated and relevant.

D. Devise a better means of initially selecting teachers and of subsequently encouraging them to innovate and to grow professionally.

II. BACKGROUND INFORMATION

In recent years many persons have been asking pointed questions concerning the role of the public schools. A few of these questions will serve to introduce the problem under consideration. Why should school plants costing millions of dollars lie idle during one-fourth of the year? When there is more to be learned (and more problems to be solved) than in years past, why should pupils not be afforded the opportunity to remain in school during the entire year? In a city the size of Atlanta what is the logic of turning 120,000 pupils into the streets all at the same time? In cities, where there is no need for pupils to work on their parents' farms, why should

school plants be left idle during the growing and harvesting periods of the year? Why shouldn't bright or ambitious pupils be given the opportunity to attend school all year, thus providing them the option of completing high school earlier? Why shouldn't teachers have the option of full-time employment with increased compensation like employees in other vocations? Why shouldn't families be able to take their vacations together during any time of the year instead of confining the choice to the hot summer months? Wouldn't more part-time jobs be available to pupils if they were not all looking for work at the same time? Wouldn't the needs of business for part-time employees be better served if some pupils were available for employment during each quarter of the year? Shouldn't pupils have the opportunity to make up work at the end of each school quarter instead of only at the end of a semester or a school year? Since there is a need for curriculum revision and improvement, why not use the concept of twelve-month, four-quarter schools as a means of accomplishing effective curriculum revision? These questions and others like them presented Atlanta with a problem; namely, should a new approach to school organization and curriculum revision be tried in Atlanta?

The Problem Under Consideration

Accordingly, the problem which Atlanta faced was whether to continue school operations as in the past or whether to try a different approach which might offer opportunities for pupil growth, pupil acceleration, curriculum improvement, full-time employment for teachers, increased flexibility for family vacations, more part-time jobs for pupils, a steady flow of part-time pupil labor for businessmen throughout the year, better opportunities for pupils to take remedial work, more variety and flexibility in course offerings, better pay for teachers, fewer double sessions and overcrowded schools, and better utilization of the school plants, which otherwise would lie idle during one-fourth of the year. In the business and industrial world, facilities, and the people working in them, are utilized during the entire year, to manufacture goods and to offer them for sale. Isn't the need to offer full time educational opportunities for people of equal importance, so that school facilities also should be fully utilized? Furthermore, when there is so much to be learned in the world today and when there are so many complicated problems to be attacked and solved, isn't it logical to operate the schools all year, to afford the pupils opportunities to gain in knowledge and in problem-solving skills? These considerations, in essence, led to the problem under consideration, the feasibility of curriculum revision for the operation of twelve-month, four-quarter schools.

Review of Related Research

Before Atlanta decided to embark upon curriculum revision for twelve-month, four-quarter schools, a review of related research was made, based upon a study of the 49 selected references which are listed in Appendix 1. In general, the professional literature and

past research studies have been based on the concepts that there should be a better utilization of the school plant, school personnel, and instructional materials; that education should not end in June and begin again in September; that school should be organized on a year-round basis like business and industry; and that extending the school year would offer additional educational opportunities for pupils.

The all-year school was advocated during World War I and World War II and in the years immediately following. A survey of the literature indicates that it was a subject of much consideration between 1924 and 1931 and again between 1947 and 1953, during times when building costs were rising and the school population was growing.

Historically, various reasons have been advanced in support of the all-year school. It was hoped that educational costs would be cut, that school facilities would be used more efficiently, and that dropouts would have reached higher educational levels before they left school. Many persons argued that a considerable savings could be realized in building construction by fully utilizing existing school facilities instead of constructing new plants to accommodate the increasing public-school enrollment. With building costs continually rising, this argument has been a strong one. Others argued that fewer teachers would be needed to staff the schools, since those employed would work on a year-round basis, thus saving money which might be used for increasing teacher salaries, which, in turn, would eliminate the necessity of teachers working at temporary employment during the summer months. Others argued that employing teachers all year would help to alleviate the shortage of qualified teachers, since fewer teachers would be needed. Still others pointed out that bright pupils might be accelerated, while additional opportunities would be afforded slow learners to make up work in which they previously had not been successful. Some claimed that juvenile delinquency and teen-age crime would be reduced, since pupils would be kept busy in school all year. Another powerful argument was that the amount of knowledge to be learned today necessitates extending the time in which to teach it. Furthermore, bright pupils might accelerate with a possibility of completing twelve school years in nine and of entering college earlier.

Various types of all-year school plans were reviewed as follows: (1) operation of the schools on a four-quarter system with rotating attendance; (2) operation of the schools throughout the year for all pupils; (3) summer school to supplement the regular school year for make-up work, acceleration, enrichment, camps, recreational programs, and the like; or (4) an extended-service term for teachers, with emphasis on inservice training activities. The most frequently proposed all-year school plan was the four-quarter system with rotating attendance. However, it was found that a number of school systems had already tried and abandoned this plan for various reasons, including the following: (1) the difficulty of conducting classes

on hot summer days without air conditioning, (2) the dissatisfaction of pupils and parents when the all-year plan failed to let the pupils choose the quarters they would attend, (3) the difficulty of school-plant maintenance with schools constantly in operation, (4) the problems of handling pupils transfers in and out of twelve-month, four-quarter schools, (5) the possible increase in administrative problems from rescheduling pupils each quarter, and (6) the additional costs required to keep the schools in operation during four quarters (instead of three quarters) of the year.

Nevertheless, the many potential advantages of twelve-month, four-quarter schools seemed to outweigh the disadvantages, particularly since ways to overcome many of these disadvantages were possible. For example, Atlanta has for several years been air conditioning all new buildings and all additions to old buildings, to make these structures usable year round. The computer has been used for scheduling classes, to reduce the administrative load of scheduling pupils four times each year. Pupil, parent, and teacher dissatisfaction have been largely avoided with the new plan by allowing pupils to choose the quarters that they would attend and by allowing the teachers to decided whether or not they would teach during the fourth quarter. Cleaning and repair of school plants are being performed at night, on weekends, or during brief holiday periods, thus reducing somewhat the costs of vandalism, which previously had occurred in vacant school buildings. The problem of pupil transfers into Atlanta or from Atlanta to other school districts has been substantially reduced, since the following six school systems in and near Atlanta simultaneously adopted the twelve-month, four-quarter plan: Atlanta Public Schools, City Schools of Decatur, Clayton County Schools, Cobb County Schools, Gwinnett County Schools, and Marietta Public Schools.

Furthermore, certain other school systems in the past had adopted the year-round-school plan for the purpose of saving money, principally by reducing capital outlays for the construction of school buildings. In Atlanta a different primary objective was envisioned; namely, to provide improved educational opportunities for the pupils. Therefore, in the process of reorganizing the curriculum into four quarters, a comprehensive effort would be made to revise and update course offerings for the pupils. Accordingly, Atlanta began a program in curriculum revision for twelve-month, four-quarter schools.

Philosophy

The philosophy of the local school system, which represents the thinking of those who participated in this project, is as follows:

A. We believe in the pupils of this city and in the future they represent. We believe that the Atlanta Public Schools can and should encourage responsible participation in a constantly changing democratic society.

B. We believe in the dignity and worth of each individual and in his right to know and feel his own worth. We believe that as an individual recognizes his own dignity and worth, he will respect the rights and privileges of all other persons.

C. We believe that pupils must have opportunities to develop ways of evaluating what they experience and of drawing conclusions concerning ways either to make an orderly change in their environment or to adjust to the situation.

D. We believe that learning is continuous and is effective only in terms of its relevancy to life. School is but one part of the educational process and should be positively related to the pupil's total world. Continuous commitment of the community through involvement in the entire educational program is vital.

E. We believe that continuous evaluation of the program and constant professional and personal growth of school personnel must be integral parts of an effective educational process.

F. We believe that the best possible physical setting, materials, equipment, professional, and community leadership must be provided.

G. We believe that man can plan for and guide change, and we feel the obligation to shape the educational program in a way that will facilitate reaching our ultimate goal -- the development of self-disciplined, free men.

Educational Goals

The educational goals of the local school system, which those who implemented this project helped to formulate, are as follows:

The Atlanta Public Schools will endeavor to enable each child to move successfully toward the development of his unique potential for life by:

A. Involving parents in the establishment of curriculum objectives and supporting their responsibility for amplifying and reinforcing positive behaviors and attitudes in the home as well as in the school.

B. Strengthening initial learning experiences of all pupils.

C. Developing proficiency in the thinking processes and in the academic, social, and physical skills which are fundamental to further learning and effective living in society.

D. Providing a climate for creative expression, divergent and convergent thinking, and appreciation for the aesthetics.

E. Developing ability to identify problems, to think critically about alternatives, to act constructively toward their solutions, and to assume responsibility for choices.

F. Providing each pupil with experiences of success and accomplishment, which will aid him in developing a positive self-concept evidenced by an awareness of his personal capabilities and limitations and the ability to set realistic goals for himself.

G. Providing learning experiences for each child by varying content and method as necessary to meet his individual needs.

H. Developing respect for the human worth and dignity, and for the efforts and ability, of each person.

I. Developing an understanding of the individual's rights, privileges, and responsibilities in order to strengthen democracy.

J. Encouraging the development of a meaningful, humane personal value system which will allow for receptivity to change.

K. Developing an appreciation and responsibility for sound mental, emotional, and physical health and an understanding of why and how they should be achieved and maintained.

L. Providing an adequate understanding of the natural and physical environment and how to use it for man's immediate and long range benefit.

M. Developing in pupils the desire and ability to assume an increasing responsibility for their own learning and for its continuance throughout life.

N. Developing an understanding of and positive attitude toward work.

O. Assisting pupils in developing ways of making wholesome, satisfying, and productive uses of leisure time.

Objective

The major objective of this project was to develop a new, learner-oriented, revitalized, high school curriculum in terms of assessable, behavioral objectives and to organize it into a twelve-month, four-quarter program for pupils.

III. METHODS USED

Rationale

Complete revision of curricula in Atlanta was long overdue. The determination to plunge into the four-quarter plan in the Atlanta Public Schools provided the opportunity for rewriting the curricula in all disciplines. The failure of the four-quarter plan in other school systems in which existing curricula had simply been cut into new time segments indicated that entirely new quarter courses, non-sequential so far as it was possible to make them, might be the successful answer. On the basis of these assumptions, complete revision of the curricula in all disciplines of the secondary schools in Atlanta was begun.

Changes in goals, objectives, strategies, and techniques were involved. The staff of each discipline was challenged to become "change agents" through the development of relevant performance-based curricula for the secondary schools.

The committee approach was utilized in each subject matter area. Criteria for the selection of committee members included experience, competency in each discipline, interest, and classroom performance. Composition and roles of the committee members changed during the process. Intersystem committees were organized to set up guidelines for subject areas, which would reduce difficulties for pupils who would transfer from one local school system to another. Steering committees researched, organized, and completed general sections, while sub-committees of one to five teachers were responsible for course development, evaluation of materials, interpretation of feedback, and writing the revisions of the completed curriculum guides.

The general approach was to establish goals in each academic discipline and to develop these goals as performance objectives at the course level for each subject. This was accomplished with the aid of consultants from universities, area staffs, subject-area chairmen, and in some instances, pupils, community representatives, and parents. The results were directed toward inservice activities with teachers, who had to be knowledgeable in formulating their day-by-day behavioral objectives.

Major Steps Taken in Project Implementation

The following major steps were taken in project implementation:

A. Fourteen task forces (one for each of 13 major curriculum areas and one for counseling) were organized and set in motion.

B. Under the umbrella of educational goals for the school system, specific objectives were developed for each course in the curriculum.

C. Instructional resource materials and media were inventoried and catalogued for each course.

D. Mode-media mixes were devised to determine and to utilize the most effective strategies for accomplishing the specific objectives in each course.

E. The revised curriculum was field tested and is being modified in accord with the results of its field testing and evaluation.

F. Inservice education has been provided the entire secondary school staff, to prepare them for successfully utilizing (and helping continuously to improve) the new curriculum.

A grant from the Bureau of Research of the United States Office of Education enabled the local school system to take these steps in curriculum revision. The funds were used to provide essential consultative assistance, to enable teachers to be released temporarily from classroom assignments for inservice education (curriculum development) during the school year, and to provide summer workshops (four weeks during 1968 and eight weeks during 1969) for the curriculum task forces and school administrators, which enabled them to make a careful analysis of the appropriateness and relevancy of each course or educational activity supervised by the schools.

Consultants Involved in Curriculum Revision

Efforts were made to obtain the counsel of capable consultants in each curricula area, to facilitate meaningful curriculum revision. Accordingly, many different consultants have been used, including the following:

A. Art

Dr. Mary Lou Kuhn -- Florida State University
Dr. Virginia Macagnoni -- University of Georgia

B. Business Education

Dr. Russell Mercer -- State Department of Education
Dr. Calfrey C. Calhoun -- Professor of Business Education, University of Georgia, Athens, Georgia

C. Distributive Education

Mr. H. R. Cheshire -- Head of Teacher-Educators, Distributive Education, University of Georgia

D. English

Dr. Dwight Burton -- Florida State University
Dr. John Simmons -- Florida State University

E. Foreign Languages

Mr. Frank Grittner (General) -- Foreign Language Supervisor for Wisconsin
Dr. Gertrude Moskowitz (Interaction Analysis) -- Temple University
Dr. Edward Best (Latin) -- University of Georgia
Dr. Robert Elkins (German) -- University of Georgia
Dr. Genelle Morain (French) -- University of Georgia
Mr. Herman Bostick (French) -- Morehouse College
Miss Ruth Keaton (Spanish) -- University of Georgia
Miss King Trousdale -- Georgia Foreign Language Consultant

F. Health Education

Dr. Richard Means -- Professor of Health Education, Auburn University, Auburn, Alabama
Mrs. Jacquelyn B. Keese -- Georgia Heart Association
Mr. M. Linwood Beck -- Georgia Heart Association
Dr. Harold Whiteman -- Medical Doctor
Mrs. Mary Hayes -- State Department of Health
Mr. Tom Gibson -- Director of Health Education and Training Services, State Department of Public Health
Dr. William H. Mason -- State Health Department
Dr. Clyde Partin -- President Elect, Georgia Association of Health and Physical Education, and Department Chairman, Physical Education, Emory University
Dr. William Dowda -- Fulton County Health Department
Dr. Fred Allman -- Orthopedic Surgeon
Mrs. Leroy Woodward -- President, Georgia Parent Teacher Association, and Vice President, Atlanta Board of Education
Mr. Jack Short -- State Consultant, Health and Physical Education
Mr. Melvi Dolob -- Fulton County Health Department
Dr. Elizabeth Adams -- Staff Physician, Health Education, Emory University
Dr. Sanford Matthews -- Medical Advisory Board, Atlanta Public Schools
Dr. Arthur Haisten -- Director, Dental Services, Fulton County Health Department

G. Home Economics

Dr. Aleene Cross -- University of Georgia
Miss Doris Beard -- Sacramento State College

Mrs. Mary Helen Goodlaw -- Georgia State Department of Health
Miss Betty Jean King -- Georgia Power Company
Miss Gwen Brooks -- Georgia Power Company
Miss Jan Tompkins -- Coats and Clarke Company
Mrs. Judy Newman -- Talon Company
Mrs. Anges Olmstand -- Colonial Stores
Miss Bertha King -- Georgia State Department of Education

H. Mathematics

Dr. John Downes -- Professor of Mathematics, Emory University, Atlanta, Georgia
Dr. Joe Hooten -- Professor of Mathematics Education, University of Florida, Gainesville, Florida

I. Music

Mr. Dick Bowles -- Music Department, University of Florida, Gainesville, Florida
Mr. Kim Harriman -- Music Department, University of Georgia, Athens, Georgia
Dr. Robert E. Bays -- George Peabody College for Teachers, Nashville, Tennessee
Dr. Samuel Applebaum -- Author, Belwin, Incorporated, Rockville Center, New York

J. Physical Education

Dr. Robert T. Bowen -- University of Georgia

K. Science

Dr. Robert Reimold -- Marine Science Laboratory, Sapelo Island, University of Georgia
Dr. Paul Kirby -- Department of Curriculum Instruction University of Texas, Austin, Texas

L. Social Science

Dr. Lunstrum -- Indiana University and Florida State University
Dr. Johnathon McLendon -- Chairman, Social Science Education, University of Georgia
Dr. Donald Schneider -- University of Georgia
Dr. John Kelly -- University of Georgia
Dr. Howard Mehlinger -- Indiana University
Dr. Theodore Boyden -- Director, Center of Business and Economic Education, Georgia State University
Dr. John Ball -- Georgia State University
Dr. Melvin Drucker -- Georgia State University
Dr. Richard Rank -- Georgia State University

M. Special Education

Dr. Mildred W. Barksdale -- Professor, Special Education, Georgia State University, Atlanta, Georgia
Dr. James Doyle -- Professor, Educational Psychology and Early Childhood Education, Atlanta University, Atlanta, Georgia
Dr. Aubry Daniels -- Georgia Mental Health Hospital, Atlanta, Georgia
Dr. Mamie Jo Jones -- Educational Director, Georgia Mental Retardation Center.

These consultants advised local curriculum committees in their curriculum efforts and assisted in planning and in conducting inservice training activities and curriculum revision workshops.

Local Personnel Involved in Curriculum Revision

All personnel in the Atlanta Public Schools have been involved, either directly or indirectly, in the curriculum development project. Teachers, through their departmental chairmen, set up terminal behavioral objectives, made evaluations of existing programs of study, specified the objectives for each course, and proposed the addition or deletion of specific courses in each subject area. Steering committees composed of approximately 8 to 10 teachers (usually chairmen of the subject-area departments) developed from these recommendations proposed curriculum revisions for presentation to the principals and area superintendents of the school system for approval.

After the curriculum guides had been prepared and approved, teachers throughout the school system field tested the guides, making recommendations for their improvement.

The curriculum revision committees were, generally speaking, composed of teachers, counselors, librarians, area resource teachers, curriculum coordinators, and consultants -- who participated in writing, compiling, editing, refining, completing, and revising the curriculum guides. Table 1 lists the various groups of persons who have been involved in curriculum development.

TABLE 1

PERSONNEL INVOLVEMENT IN CURRICULUM DEVELOPMENT

Determining Objectives and Courses, Implementing the Curriculum Guides, and Evaluating the Curriculum Guides	Writing, Compiling, Editing and/or Revising, Refining, and Completing the Curriculum Guides
Art	Art
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	7 teachers 1 counselor 1 librarian 3 area resource teachers 1 pupil 2 consultants
Business Education	Business Education
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	15 teachers Executive director of business education 3 consultants
Counselors	Counselors
All counselors	5 counselors
Distributive Education	Distributive Education
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	10 teachers 1 counselor Coordinator of distributive education 1 consultant
English	English
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	12 teachers 1 counselor 1 librarian Coordinator of English 5 area resource teachers of English 2 consultants

TABLE 1 (Continued)

Foreign Languages	Foreign Languages
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	18 teachers - French 4 teachers - German 7 teachers - Latin 1 teacher - Russian 16 teachers - Spanish 5 teachers - English as a second language 8 consultants Coordinator of foreign languages
Health Education	Health Education
All teachers -- chairmen of departments -- steering committee (approximately 8-12) teachers)	4 teachers Coordinator of science Coordinator of girls' physical education Coordinator of boys' physical education Coordinator of home economics 15 consultants
Home Economics	Home Economics
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	8 teachers 11 consultants Coordinator of home economics 1 counselor 2 librarians
Mathematics	Mathematics
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	8 teachers Coordinator of mathematics 1 area resource teacher 1 counselor 1 librarian 3 consultants
Music	Music
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	27 teachers 4 consultants 5 resource teachers of music Coordinator of music

TABLE 1 (Continued)

Physical Education	Physical Education
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	8 teachers Coordinator of girls' physical education Coordinator of boys' physical education 1 consultant
Science	Science
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	32 teachers Coordinator of science 5 area resource teachers 1 consultant 2 counselors 1 librarian
Social Science	Social Science
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	49 teachers Coordinator of social science 1 counselor 3 librarians 9 consultants
Special Education	Special Education
All teachers -- chairmen of departments -- steering committee (approximately 8-12 teachers)	7 teachers 6 consultants Coordinator of special education.

In summary, membership on the curriculum development committees has included 238 teachers, 13 counselors, 9 librarians, 20 resource teachers, 15 curriculum coordinators, 66 consultants, and 2 other persons. Of course, field testing and revising the curriculum guides have involved great numbers of additional people throughout the school system, particularly classroom teachers in the various subject-area fields.

Inservice Workshops and Related Activities for Curriculum Development

Realizing that successful implementation of new and innovative curricula would require the understanding and acceptance of every teacher in the Atlanta School System, the decision was made to use workshops and inservice training activities in order to achieve

teacher understanding and acceptance of the new curriculum. Accordingly, at the workshops teachers and others were invited to make suggestions concerning additions or deletions that would make the curricula materials relevant and valuable to the pupils and society.

Fifty-four system-wide inservice workshops were held to facilitate development and revision of these curricula. An additional 18 school-area workshops also were held during the developmental period. Furthermore, industrial and community resources were utilized in the workshops, and teacher orientation emphasized the techniques for using new community resources in the various instructional areas. Related activities included sessions on each of the following: the preparation of handbooks for pupils, teachers, and counselors; the development of instructional transparencies; the interlocking of academic and vocational education; the evaluation of various types of curricula materials; the use of school clinics for special problems; the development of pupil contracts for instruction in science; and the like.

Table 2 provides a listing of the inservice workshops for curriculum development and related activities.

Other Considerations

In preparing the curriculum guides and in evaluating special materials, strategies, and equipment, the following steps were taken:

A. Locally devised forms were used for collecting data needed in curriculum revision.

B. Other curriculum guides were studied.

C. New curricula trends were assessed.

D. An effort was made to discover relationships between national trends and local needs.

E. Books, films, slides, and other materials were reviewed and evaluated.

F. Various community resources were listed and evaluated for their usefulness in the new curriculum guides.

In devising and in revising the curriculum guides, the opinions of pupils, teachers, consultants, and others were sought. This was done through interviews, teacher meetings, workshops, departmental meetings, and locally devised questionnaires. Group processes were used in reviewing each curriculum guide, to assess the degree to which the materials and strategies suggested were useful in achieving the stated objectives. Furthermore, suggestions for improvements were always welcome, so that the curriculum guides might continuously be improved.

TABLE 2

INSERVICE WORKSHOPS AND RELATED ACTIVITIES FOR CURRICULUM DEVELOPMENT

Discipline Area	Inservice Workshops	Related Activities
Art	System-wide workshop Area Workshops in areas I, II, and IV New teacher orientation	Evaluative sessions held.
Business Education	System-wide workshop	Had teachers submit outlines in their specialty.
Coordinated Vocational and Academic Education	System-wide workshop New teacher orientation	Correlating with academic teachers for interlocking of disciplines.
Distributive Education	System-wide workshops (1969 and 1970) New teacher orientation	Development of transparencies (45 sets) Pupil handbooks prepared.
English	System-wide workshop	Pupil evaluative committees (2) established.
Foreign Languages	Individualization of Instruction (2) 10 days each Interaction analysis (3 days) Use of electronic aids New teacher orientation	Planning for intervisitations.
Guidance	System-wide workshop	Preparation of counselor handbooks.

TABLE 2 (Continued)

Health Education	System-wide workshop Forty-hour workshop (1970)	Attendance at local, state, regional, and national conferences on health education.
Home Economics	System-wide resource workshop (3 weeks) Inservice workshop on teaching techniques (40 hours)	Coordinated course titles and descriptions with those of other school systems. Developed a resource book of teaching materials.
Mathematics	Twenty-six inservice workshops for teachers in five areas of mathematics Curriculum revision workshops in 1967-68 (16 days); in 1968 (4 weeks); and in 1969 (4 weeks)	Teacher evaluations of curriculum guides.
Music	System-wide workshops (4) Area workshops in areas I, II, III, IV, and V	Teacher handbooks developed in instrumental music Teacher handbooks developed in choral music.
Physical Education	System-wide workshops (4) 132 hours each Area workshops in areas I, II, III, IV, and V	School clinics held at every school in the system.
Social Science	Inservice curriculum analysis and behavioral objectives (50 hours) Workshops for teachers (3)	Five one-day consultative sessions for representatives from each high school.
Special Education	System-wide workshops (5)	Planned city-wide workshop for teachers, counselors, and work supervisors during 1971.

IV. RESULTS OBTAINED

General Improvements

The evaluation and reorganization of curricular offerings, which were initiated as a part of this project, resulted in recommendations for the development of 506 courses in 12 subject areas. Curriculum guides for 357 of these courses have been completed. Several of the courses yet to be added are being field tested in pilot schools at the present time.

An attempt has been made to redesign all curriculum guides around performance objectives, leading to more independent work and more individualized instruction for pupils of all abilities. The restructuring of offerings has also made possible more satisfactory grouping in relation to the interests and needs of the various pupils.

In all subject areas the offerings are now broader and more flexible, as the main thrust has been on eliminating required sequences, wherever possible. Another valuable result is the use of more descriptive course titles, which indicate the increased relevance of content. There also has been a concentration of learning experiences to give greater depth of instruction in specific areas.

As a result of the implementation of the four-quarter curriculum, there are now many more opportunities for pupil options, for individualized instruction, and for independent study. Simulation, role playing, and dramatization are used extensively throughout the new courses; and much greater use than previously is being made of media of all kinds. There is more provision for teaching teams to operate on both a formal and an informal basis; and teachers are encouraged to be innovative, to try new ideas, and to make suggestions for changes in the curriculum. It is hoped that continuous evaluations and changes in course offerings have been established as an on-going process in all subject areas.

The attempt to make the curriculum relevant to pupils is seen in the increased emphasis on pupil involvement, in the use of the immediate environment and the personal interests of pupils as bases of reference, and in the utilization of current pertinent instructional materials.

Although no substantiating statistical information is available, observations indicate that more pupils now are selecting courses in the basic subjects, such as mathematics and English, and that there now are fewer failures in such courses. In other areas, such as special education, improved attendance and increased involvement of parents are further indications of relevance.

Specific Improvements

Among the specific improvements, the following are noted:

A. The new English curriculum emphasizes a thematic approach to literature, the study of language in all aspects instead of grammar for its own sake, and a concentration on oral language as a basis for the skills of reading and writing.

B. Science has moved away from lecture-demonstration with individual pupil laboratory work to an emphasis on individual and small group experimentation.

C. Social science courses have been developed around the cluster concept, utilizing the new social studies project materials. The main thrust has been in the elimination of basic texts and in the use of more simulation and multi-media combinations.

D. The mathematics offerings have been expanded to include enrichment courses and advanced-placement courses, while the Basic Mathematics and Laboratory Mathematics programs have been made more flexible.

E. The music curriculum now places more emphasis on general-type courses than on performance skills. In art the emphasis has been on a continuum with regard to consumer choices and cultural influences. Another point of emphasis in the fine arts is utilization of advances in technology and industry toward aesthetic ends.

F. Special education and distributive education now have written course guides for the first time.

G. The home economics curriculum gives more visibility to concepts of management and consumer education with increased emphasis on human development. Guides for occupational education based on home economics knowledge and skills have been developed concurrently, but not as a part of this grant.

H. In business education more emphasis has been given to employment readiness other than skill development.

I. The physical education program has been expanded to include more varied activities with a focus on lifetime sports.

J. Health has been separated from physical education, and the content now is based on the current concerns of youth.

K. More complete bibliographies and lists of resources have been made available as a part of the curriculum guides in all subject areas. Specific supplementary materials have been developed in some areas.

L. In the foreign language program, tapes which accompany basic texts were broken down into more usable time blocks and were made available in cassette form. Packets of motivational materials also were developed.

M. A set of 45 transparencies, as well as a separate bibliography of resource materials, was developed for each teacher of distributive education. Furthermore, new handbooks were developed for teachers of music, health, and physical education.

N. A resource book -- including questionnaires, case studies, and other evaluative and instructional devices -- was developed to correlate with the home economics guide; and packets of materials listing a variety of pupil activities were provided for English classes.

O. Supplementary materials for specific courses, such as Laboratory Mathematics and Mass Media, also were developed.

Additional Needs

Redesigned space and more teaching machines and other electronic devices are needed to implement fully the new curriculum. There is need for more projectors -- opaque, overhead, film, and filmstrip -- and for more tape recorders, video tape recorders, and record players. The emphasis placed on relevance and on "here and now" necessitates the use of materials from current publications and of paperbacks or vinyl books too new to be on the Georgia State Textbook List.

As instruction becomes more individualized, there will be a need for more programmed printed materials, and specific courses will need additional equipment. Mathematics will need more calculators, programmers, and computer terminals. Art will need more photographic laboratories. All areas will need cameras and recorders, to encourage teachers and pupils to create or produce their own materials.

The understanding of each curriculum guide and its use as planned seems to have been in direct proportion to the kind and degree of the individual teacher's involvement in its planning, writing, and editing. In almost all areas, curriculum coordinators have indicated that teachers should be provided with additional assistance in using the new curriculum guides effectively.

Copies of Curriculum Guides Produced

Three sets of the curriclum guides produced by this project are enclosed in three separate boxes which accompany this Final Report as Appendix 2. These curriculum guides, many of which have been revised following field testing, serve as concrete evidence of the tremendous amount of work accomplished by the curriculum committees as they endeavored to revitalize and individualize the curriculum, while

organizing it into a twelve-month, four-quarter program of studies. Further, the momentum of this project continues, since the new curriculum guides are being further revised; and new courses and guides are currently being added.

Opinion Survey Relating to Twelve-Month, Four-Quarter Schools

In May and June of 1969, after the schools had operated three quarters under the new organizational plan, the Supplementary Educational Center of the Metropolitan Atlanta Region conducted an opinion survey relating to twelve-month, four-quarter schools. Questionnaires were administered to pupils, parents, teachers, and others, to obtain the reactions of these persons concerning (1) reasons for the change to twelve-month, four-quarter schools, (2) possible advantages of the new plan, and (3) possible disadvantages of the new plan.

Six hundred and six pupils completed and returned the questionnaires, which represented about one-half of all the questionnaires distributed to the pupils. The respondents were eleventh and twelfth grade pupils, 49 per cent being juniors and 53 per cent being girls.

The pupils gave the following reasons for the change to the new curriculum:

Pupils' Reasons For the Change	Per Cent of Pupils Giving Each Reason
Better selection of courses	75
Graduate sooner	72
A complete school program in the summer	68
Program suited to each	63
Encourage to stay in school	58
Reach individual interests	55
Update school studies	52
Better use of buildings	52
Limit student failure to one quarter	43
Fewer students in school at one time	43
Graduate and enter college any quarter	39

According to the pupils, the advantages of the new curriculum are as follows:

Advantages Given by the Pupils	Per Cent of Pupils Giving Each Advantage
Complete requirements and graduate earlier	84
Better chance to make up failures	79
Greater choice of courses	77
Course failure only one quarter	77
More chances for enrichment	75
Better suited program to individual needs	73
Teachers can be assigned by special competencies	71
Chance of part-time employment improved	69
New courses	68
Better suited to individual interests	65
Alternative for summer	63
Better opportunity to take remedial work	62
Graduate at any quarter	62
Maintain interest better in quarters	58

According to the pupils, the disadvantages of the new curriculum are as follows:

Disadvantages Given by the Pupils	Per Cent of Pupils Giving Each Disadvantage
Too little pupil understanding of the new plan	63
Too many registrations	38

Eight hundred and eighty-three parents returned completed questionnaires, constituting approximately 40 per cent of all the questionnaires distributed to the parents. Parents also were requested to indicate (1) reasons for changing to twelve-month, four-quarter schools, (2) advantages of the new plan, and (3) disadvantages of the new plan.

According to the parents, the reasons for changing to the new curriculum were as follows:

Parents' Reasons for the Change	Per Cent of Parents Giving Each Reason
Give students better selection of courses	60
Allow students to graduate sooner	55
Encourage graduation before quitting	54
Make better use of buildings	51
Have complete program in summer	49

Parents' Reasons for the Change	Per Cent of Parents Giving Each Reason
Provide a program suited to each	48
Update school studies	44
Reach individual interests	42

According to the parents, the advantages of twelve-month, four-quarter schools are as follows:

Advantages Given by the Parents	Per Cent of Parents Giving Each Advantage
Better chance to take subjects failed	74
Chance to graduate earlier	58
More opportunity for advanced courses	57
Better use of buildings	49
Better subject choice	47
More students can get work experience	39
More individual attention for students	38
Development of new courses and materials	37
More courses offered (depth, breadth)	36

According to the parents, the disadvantages for changing to the new curriculum are as follows:

Disadvantages Given by the Parents	Per Cent of Parents Giving Each Disadvantage
Lack of community understanding	46
Student attitudes toward plan	40
Lack of student understanding	40
Possible need for more financial support	37

A large number of teachers returned the questionnaires -- indicating (1) possible reasons for adopting twelve-month, four-quarter schools, (2) advantages of the new curriculum, and (3) disadvantages of the new curriculum.

According to the teachers, the reasons for adopting the new plan were as follows:

Teachers' Reasons for the Change	Per Cent of Teachers Giving Each Reason
Better structured for individual students	77
Better able to meet student interests	68
Wider selection of courses	75
Full school program in summer	64
Earlier graduation	57
Reduce number of dropouts	54
Provide students with meaningful activities	54
Facilitate curriculum revision	45
Full use of school buildings	85
Utilize special abilities	50
Provide year-round employment	19
Allow part-time employment	17
Allow a savings in money	13
Pet project of the administration	12

According to the teachers, the advantages of the new curriculum are as follows:

Advantages Given by the Teachers	Per Cent of Teachers Giving Each Advantage
Building utilized to greater extent	89
Earlier graduation possible	85
Failures are for a quarter, not a year	85
Teachers employed for full calendar year	81
Development of new courses and course guides	78
Greater course selection for student	74
Improved opportunity for remedial work	73
Re-evaluation of course offerings	73
Shorter courses help students retain interest	66
Teachers special abilities better utilized	65
Prerequisite courses reduced	49
More individual attention	41
Removal of unnecessary and irrelevant courses	23

According to the teachers, the disadvantages of the new curriculum are as follows:

Disadvantages Given by the Teachers	Per Cent of Teachers Giving Each Disadvantage
More registration procedures	76
Lack of community understanding	69
Additional texts required	61
Increase in student records	58
Increased number of teacher preparations	49

The results of this survey clearly indicate that in the opinion of pupils, parents, and teachers the advantages of twelve-month, four-quarter schools and the new curriculum unmistakably are greater than the disadvantages. The results of this survey also indicate that strong support exists among pupils, parents, and teachers for the new program. Primarily, people support the new four-quarter plan on the basis of curriculum concern, increased flexibility, improved courses for pupils, and maximum benefits from school personnel and buildings.

This survey serves as a prelude to a more comprehensive study of twelve-month, four-quarter schools, which is currently being conducted by the Supplementary Educational Center of the Metropolitan Atlanta Region.

V. CONCLUSIONS REACHED

According to the opinion survey conducted by the Supplementary Educational Center of the Metropolitan Atlanta Region, it is clear that pupils, parents, and teachers support twelve-month, four-quarter schools and consider the advantages to be greater than the disadvantages.

Furthermore, an examination of reports from all areas indicates that, as an outgrowth of work which has gone into twelve-month, four-quarter curriculum development, many goals have been achieved, and great progress has been made toward others. High school teaching staffs, who have been involved on school time in all facets of evolving a new curriculum, have become more united in the common goal of curriculum change and in efforts to improve instruction. The belief that curriculum making is a continuous process involving each teacher has developed and deepened.

Many teachers have moved from single-text-oriented instruction toward grouping, utilization of multiple media, and expanding classrooms into active participation in the community.

Emphasis on the use of performance objectives has helped many teachers and pupils to pinpoint more sharply what they are attempting to do and has improved communication about purposes, goals, and evaluative procedures.

In all areas the curriculum has become much more flexible and more relevant to the pupils' interests, needs, and abilities. More in-depth teaching in specific interest areas is occurring, and more schools are offering independent study opportunities for pupils.

Had it not been necessary for Atlanta to transfer large numbers of teachers because of a Federal court order in March, 1970, just as staffs were achieving a feeling of success and stability in the changes which they had effected, a more valid evaluation would be possible of the changed attitudes, increased skills, increments in interest and participation, and additional learning on the part of the pupils.

The high turnover of personnel which resulted from this court order has pointed out the need for a more effective system for introducing new teachers to the Atlanta philosophy and curriculum, for constant, on-going involvement of new teachers, and for re-cycling teachers who have not yet met the criteria for implementing the four-quarter curriculum.

The progress which has been made has also helped to point up the need for the development of more effective ways to make available to individual pupils information about resources which are available to them for achieving objectives -- such as contract-based, multi-media learning activity packets, which provide for flexibility in the choice of objectives and media for achieving the objectives.

Finally, the principal benefits from this project are as follows:

A. A revised, updated, more flexible, and more relevant curriculum in the disciplines in which the school system concentrates.

B. A cadre of trained teachers and administrators experienced in the application of behavioral objectives and technology to teaching problems.

C. An in-school climate receptive to further curriculum change and improvement, which means that the impact of this project will continue into future years.

VI. RECOMMENDATIONS

In order that gains from the twelve-month, four-quarter curriculum revision may be maintained and that progress may continue, attention to a variety of factors seems to be indicated as follows:

A. Professional development activities.

1. Preservice training for all high school teachers new to the system or new to the subject area.

2. Required inservice training for all teachers during the salaried day.

   a. To implement curriculum already developed.

   b. To continue to involve teachers in the revision and further development of the curriculum.

3. Required quarterly sessions during the salaried day for all high school departmental chairmen, to be accompanied by increased enabling provisions for and responsibility for curriculum implementation in their schools.

4. Involvement of all principals, to receive from them and to help them develop an understanding of and positive attitudes toward the new curriculum, since their support is crucial to its effective implementation.

B. Instructional guides and materials.

The process of revision and development of guides needs to be continued; and much greater provision is needed for learning activity packets, programmed materials, and other ways to make continuous progress possible.

C. Instructional personnel.

Provision is needed to utilize the specialized knowledge of curriculum area specialists for the effective employment and placement of teachers.

D. Fostering innovations.

Encouragement of improvements and innovative practices is needed through providing funds (and a framework) for evaluating and making decisions about "mini-projects" submitted by the teachers.

VII. DISSEMINATION ACTIVITIES

The Atlanta experience concerning curriculum revision for twelve-month, four-quarter schools has been freely shared within and outside the local school system. The new curriculum guides have been widely distributed. Numerous news stories and articles have appeared in the local news media and in national publications. Information and materials have been mailed in response to letters of inquiry. Orientation and curricular materials have been provided visitors to the school system. Locally sponsored seminars on twelve-month, four-quarter schools (seven since January of 1970) have answered the questions of many. Furthermore, Atlanta has participated in national seminars on year-round schools and will be represented on the program of the Third National Seminar on Year-Round Education in March of 1971.

Curriculum Guides

In addition to sharing the new curriculum guides with various visitors to Atlanta, these guides have been distributed to the following:

A. Classroom teachers.

B. Principals.

C. School counselors.

D. Schedule committees.

E. Library of each high school.

F. Curriculum coordinators.

G. Curriculum directors.

H. Assistant superintendents.

I. Area superintendents.

J. The Superintendent.

K. Special program directors.

L. Board of Education members.

M. Professional Library.

N. State Curriculum Department.

O. Project consultants.

P. Cooperating school systems in the Metropolitan Atlanta Area.

News Stories and Articles

Numerous news stories, articles, and editorials have appeared in the local newspapers and other news media.

Additional articles, describing the Atlanta program of twelve-month, four-quarter schools, have appeared in the following national publications:

"Atlanta Schoolman Discusses His Year-Round School Program," Dr. Arthur H. Rice, *Nation's Schools*, Volume 86, Number 6, December, 1970, page 12.

"Year-Round School -- Report on the Latest Test," *U. S. News and World Report*, August 18, 1969, pages 32-34.

"Should We Have Year-Round Schools?" Gerald M. Knox, Editor, *Better Homes and Gardens*, June, 1970, pages 60-100.

"Atlanta Initiates Work on Student-Oriented Secondary Curriculum," Dr. John Letson, Superintendent, and Dr. James O. Knuckles, *Educational Systems for the '70's News*, June, 1968, page 6.

Visitors and Letters of Inquiry

Visitors have come to Atlanta from 25 different states and from two foreign countries to learn about the Atlanta program of year-round schools as follows: New Jersey, Florida, Massachusetts, Alabama, Pennsylvania, Louisiana, Indiana, Oklahoma, Minnesota, Ohio, Illinois, Virginia, Texas, Tennessee, Kentucky, Iowa, Connecticut, Kansas, Michigan, New York, Maryland, North Carolina, Delaware, Nebraska, Georgia, Canada, and The West Indies. Furthermore, since January, 1970, materials and information have been sent to 49 different persons by mail in response to their specific letters of inquiry.

Seminars on Twelve-Month, Four-Quarter Schools

The requests for information about twelve-month, four-quarter schools had been so numerous that the decision was made to hold periodic seminars, which would provide interested persons from outside the local school system with information and answers to their questions about the Atlanta program. Accordingly, since January of 1970 the following seminars have been held to disseminate this information:

Date 1970	No. Visitors Attending
January 19-20	68
March 16-17	62

Date	No. Visitors Attending
1970	
April 20-21	27
June 15-16	58
July 20-21	26
October 19-20	23
1971	
January 18-19	51
April 19-20 (Present Preregistration)	11
Total Attending Seminars	326

Third National Seminar on Year-Round Education

A further sharing of information about the Atlanta program of year-round schools will take place at the Third National Seminar on Year-Round Education, to be held March 24-26, 1971, at Cocoa Beach, Florida. At this seminar Dr. Jarvis Barnes, Assistant Superintendent for Research and Development, Atlanta (Georgia) Public Schools, will participate in a panel, making a presentation entitled "Some Internal Problems Associated With a Year-Round Program." Dr. Barnes also will be available to answer questions about the Atlanta program.

VIII. APPENDIX

Appendix 1 -- References on Year-Round Schools

The following references were included in the review of literature on year-round schools:

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Appendix 2 -- Curriculum Guides

Three different sets of the curriculum guides which have been produced by this project are being shipped with this report, each set of the guides being packaged in a separate box labled "Appendix 2, Final Report on Curriculum Revision Based on Behavioral Objectives for Twelve-Month, Four-Quarter Schools, Atlanta Public Schools, Atlanta, Georgia."

Each separate box will, therefore, contain one copy each of the following curriculum guides:

A. Art

Art Curriculum Guide

B. Business Education

Business Education, Book I
Business Education, Book II
Business Education, Book III

C. Cooperative Vocational and Academic Education

Cooperative Vocational and Academic Education

D. Distributive Education

Distributive Education, 1969, Book I
Distributive Education, 1969, Book II
Distributive Education, 1969, Book III
Distributive Education, 1969, Book IV

E. English

English, 1968
English

F. Foreign Languages

French Guide, 1968
Latin Guide
Spanish Guide, 1968

G. Guidance and Counseling

Counselors' Handbook
Cues for Curriculum -- The Counselor's Role

H. Health

Health Education, 1968
Health Education

I. Home Economics

Home Economics Occupational Education in Child Development
Home Economics Resource Book

J. Industrial Arts

Industrial Technology, 1968

K. Mathematics

High School Mathematics Curriculum Guide, 1968
High School Mathematics Curriculum Guide, 1969
Laboratory Mathematics

L. Music

Choral Teachers' Handbook and Guides for Choral Courses
Guide for Non-Performance Music Courses
Instrumental Teachers' Handbook and Guides for
Instrumental Courses
Music, 1968

M. Physical Education

Physical Education, 1968

N. Social Science

Social Science, Book I, 1968
Social Science

O. Special Education

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